





Funding for Training the Next Generation of Cancer Researchers

Nastaran (Nas) Zahir, PhD

Chief, Cancer Training Branch, Center for Cancer Training



NCI Extramural Funding for Cancer Training

Cancer Training Branch (CTB)
Center for Cancer Training

Awards intended for all cancer researchers

- Institutional Training Grants
- Research Education Grants
- Individual Career Development Awards
- Transition Awards
- Fellowships

Chief: Nas Zahir, PhD

https://www.cancer.gov/grants-training/training/funding

Diversity Training Branch (DTB)
Center to Reduce Cancer Health
Disparities

Awards intended for students and scientists from populations underrepresented in biomedical sciences

- Research Education Grants
- Individual Career Development Awards
- Transition Awards
- Fellowships
- Research Supplements to Promote Diversity

Acting Chief: Alison Lin, PhD

https://www.cancer.gov/aboutnci/organization/crchd/diversity-training/cure

Center for Global Health

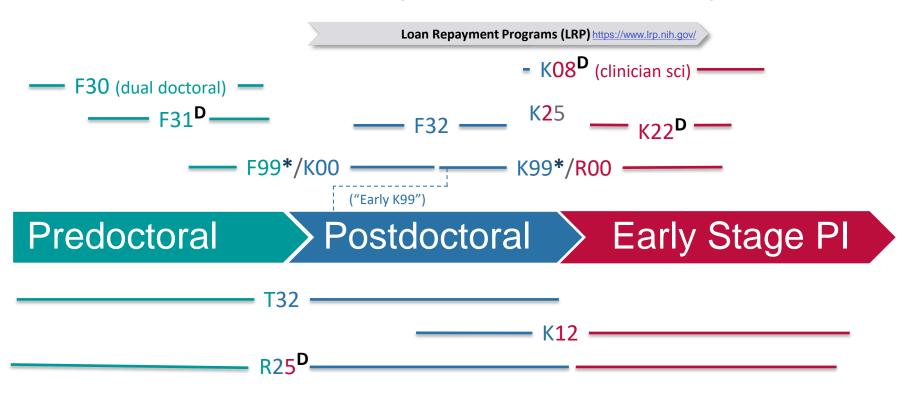
Awards intended for mentored training in global cancer research

- Institutional Capacity
 Building and Mentored Training
- International Research
 Scientist Development Award

Program Director: Sudha Sivaram, DrPH, MPH

https://www.cancer.gov/about-nci/organization/cgh/research-training

NCI Supports Cancer Training at Multiple Career Stages



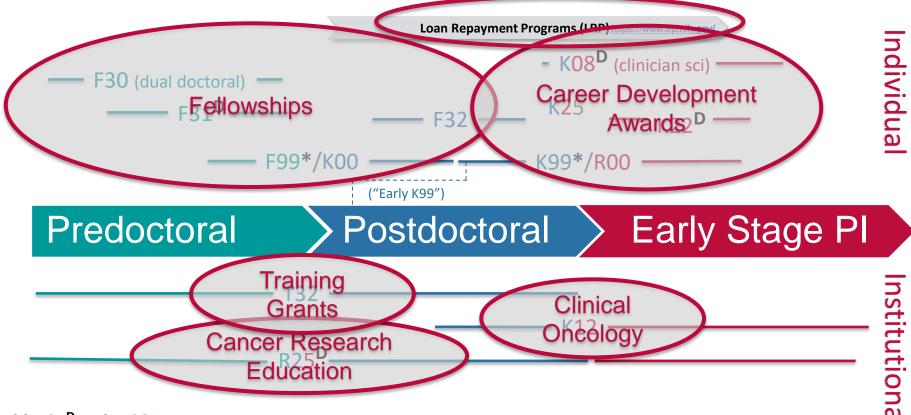


https://www.cancer.gov/about-nci/organization/crchd/diversity-training/cure

NIH NATIONAL CANCER INSTITUTE D Diversity FOA available

^{*}Open to Applicants with U.S. Visas • https://www.cancer.gov/grants-training/training/funding

NCI Supports Cancer Training at Multiple Career Stages



F33 K01^D K18 K38

NIH NATIONAL CANCER INSTITUTE D Diversity FOA available

https://www.cancer.gov/about-nci/organization/crchd/diversity-training/cure

^{*}Open to Applicants with U.S. Visas

https://www.cancer.gov/grants-training/training/funding

NCI Cancer Training Branch Program Director Contacts



Yansong Bian, MD, PhD F30, F31, K08, K12, T32



Corinne Boulanger, PhD F30, F31, K99/R00, T32



Mark Damico, PhD **F30**, K00, **K12**, LRP, T32



Mariam Eljanne, PhD F32, **F99/K00**, R25, **UE5, U24**



Sonia Jakowlew, PhD F32, F33, K22, K25, K99/R00



Susan Lim, PhD K08, LRP, T32



Hana Odeh, PhD F30, F31, F32



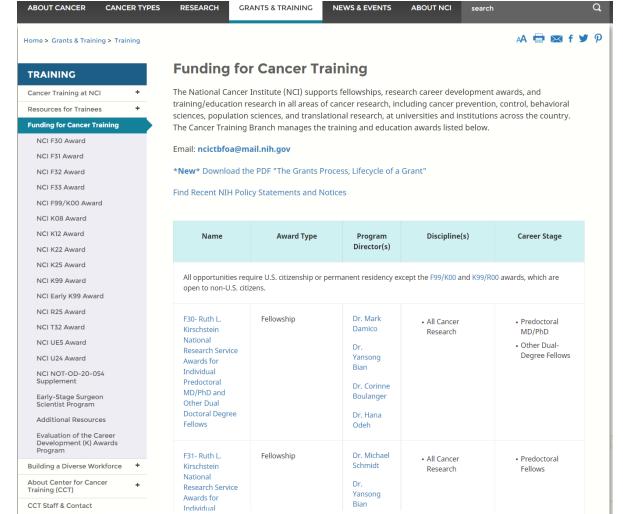
Sergey Radaev, PhD KO8, Early K99/R00, R25



Michael Schmidt, PhD F31, K99/R00, K22



Nas Zahir, PhD R25, UE5, U24



6

Ruth L. Kirschstein National Research Service Award (NRSA) *Individual Fellowships*

F30 Predoc

- Support predocs during clinical & graduate training leading to a combined doctoral degree (e.g., MD/PhD, DDS/PhD, DVM/PhD, AuD/PhD,DO/PhD)
- Enrolled in a dual degree clinical program no more than 48 months prior to initial application & must have identified a dissertation project & sponsor
- At least 50% of the award period must be devoted to full-time graduate research training leading to the research doctoral degree

Learn more

F31 Predoc

- F31 supports PhD research candidates who have identified a mentor & will be performing dissertation research
- Diversity F31: supports both dual degree and PhD only predocs from diverse groups under-represented in the biomedical or behavioral sciences
- Typical time to apply for an F31 is when a thesis proposal has been approved

<u>Learn more</u>

F32 Postdoc

- Supports mentored postdoctoral training under the guidance of a faculty sponsor
- Fellows must have a research or clinical doctoral degree from an accredited US or foreign institution
- Integrated program of research & mentored training to enhance potential to develop into an independent researcher
- Currently limited to total of 3 years but extensions can be requested

Learn more

All fellowships require references from individuals <u>other</u> than primary mentor(s)

NRSA Fellowships Provide Levels are from FY21 since currently under Continuing Resolution

Stipend (full-time effort required)

- Predocs (F30 or F31): \$25,836 per year for up to 5 or 6 years
- Postdocs (F32): \$53,760—\$65,292 per year for up to 3 years
 - Stipend level depends on number of years of postdoctoral experience

Partial tuition and fees

- 60%, up to \$21,000 (in a degree program) or \$4500 (postdocs)
- Funds for training-related expenses (mostly health insurance, travel)
 - \$4,200 for a predoc trainee; \$11,850 for a postdoc trainee

F99/K00 Predoc to Postdoc Fellow Transition Award

- Goal: Encourage outstanding late-stage graduate students to pursue careers in cancer research as independent investigators by facilitating transition to cancer research postdoctoral appointments.
- For outstanding research doctoral candidates in the 3rd or 4th year
 - Not NRSA; graduate students on student visas are eligible
 - Non-clinical PhD or other research degree program
 - Only 1 nominee per institution
- Dual-phase funding
 - **F99** phase = 1-2 years; similar to F31
 - Fellow completes dissertation research, secures a postdoctoral fellowship
- Transitions to K00 phase (mentored K award) = 4 years
 - Higher salary than F32 stipend + \$3,000 for research expenses
- Annual application deadline around November



Fellowship Applications: Factors to Consider

- NCI requires that the sponsor have research funding (R01 or equivalent) because fellowships do not fund the research project
- Research training that has a clear cancer focus
- Typical timing of submission
 - F30: year 4 of a dual-degree program
 - F31: year 3 of a PhD program; F99/K00
 - F32: 1st (30%) or 2nd (60%) year of postdoctoral fellowship
- NCI expects the applicant to have intellectual input in the project

Individual Career Development Awards (Ks)

<u>Goal</u>: Ensure that a diverse pool of highly trained scientists is available in appropriate scientific disciplines to address the Nation's biomedical, behavioral, and clinical research needs.

K award programs are designed to foster the <u>transition</u> of new investigators <u>to</u> <u>research independence</u>.

K Comparisons (all support training in any area of cancer research)

	"Early" K99/R00	Parent K99/R00	K01 Diversity (NCI-CRCHD)	K22 and K22 Diversity	K08 and K08 Diversity
Mentored vs non-mentored (independent)	Mentored phase / Non-mentored phase	Mentored phase / Non-mentored phase	Mentored	Non-mentored	Mentored Clinical Scientist
Citizenship	U.S. citizens or non-U.S. citizens	U.S. citizens or non-U.S. citizens	U.S. citizens or permanent residents	U.S. citizens or permanent residents	U.S. citizens or permanent residents
Eligibility	≤ 2 years postdoc training	≤ 4 years postdoc training	2 – 5 years postdoc training	2 – 8 years postdoc training	Postdoc and early career
Duration of Award	1-2 years K99 1-3 years R00	1-2 years K99 1-3 years R00	Support for 3 – 5 years protected time	Support for 3 years activated when independence begins	Support for 3 – 5 years protected time
Budget	Salary up to \$100K Fringe benefits Research \$30K (K99 portion)	Salary up to \$100K Fringe benefits Research \$30K (K99 portion)	Salary up to \$100K Fringe benefits Research \$30K	Salary up to \$100K Fringe benefits Research \$50K	Salary up to legislative cap Fringe benefits Research \$50K

Criteria for Successful Mentored Career Award Applications

- Candidate: motivated, well-trained, productive
- Mentor(s): strong mentoring and funding track record, highly qualified, committed to support the candidate
- Career development/ training plan: meaningful training in research and professional development
- Research plan: innovative, good training platform/ vehicle for transition to independence (high feasibility/ high impact; niche for applicant's own lab)

Tips for Mentors/Sponsors on Career Award Applications

- Identify co-mentor(s)/ co-sponsor(s)
- Co-mentor(s) should have a clearly defined role in the application
- Develop a training plan/career development plan that is tailored to the needs of the applicant/candidate.
- Be actively involved in the grant preparation process
 - grantsmanship issues = poor mentoring
- Avoid scientific overlap + no text duplication from R01

The NIH Loan Repayment Program Helps Pay Back Education Loans

- NCI Eligible Candidates: Researchers conducting cancer-focused studies in clinical translation, pediatric cancer, cancer health disparities, epidemiology, population sciences, and prevention.
- Award is up to \$50,000 per year and renewable as long as applicant continues to meet eligibility criteria and has eligible educational debt
- 2-year research commitment
- Application deadline: November 18, 2021
- FY21: NCI funded 208 applications. Success rate: 69%
- NCI LRP Liaison (contact):
 Mark Damico, PhD <u>mark.damico@nih.gov</u>





Funding Rates for All Cancer Training 5 Year Average (2016-2020)

Program	# of Applications/yr	# of Awards/yr	Success Rate
F30	153	63	41%
F31	311	76	25%
F32	216	49	23%
F99	75	28	37%
K08	104	36	34%
K99	192	37	20%
K22	96	16	14%
K12	7	4	65%
R25	27	11	43%
T32	68	36	53%

https://report.nih.gov/funding/nih-budget-and-spending-data-past-fiscal-years/success-rates



For early-stage investigators whose research productivity has been impacted by COVID-19 during their NIH ESI period

- Submit a request for an extension to NIH ESI status and describe the nature of the disruption to research productivity in the request.
- Link in the Education section of the PI's Personal Profile in <u>eRA Commons</u>.

https://era.nih.gov/erahelp/ESIE_ext/Default.htm#cshid=4

- NIH will consider requests to extend the ESI status period for reasons that can include the following, as determined on a case-by-case basis at the sole discretion of NIH.
 - Medical concerns
 - Disability
 - Family care responsibilities
 - Natural disasters
 - Active duty military service

https://nexus.od.nih.gov/all/2020/04/09/can-esi-status-be-extended-due-to-disruptions-from-covid-19/



Thank you for your attention

Email: nas.zahir@nih.gov

Twitter: @nas_zahir | @nci_bogler



See our website for more information on funding mechanisms and our contact information cancer.gov/CCT

www.cancer.gov

www.cancer.gov/espanol



Follow NIH/NCI!

- @NIHfunding
- @NIHgrants
- @NCI_Training
- @NCICRCHD
- @NCIGlobalHealth
- @NCIDataSci
- @NCIgenomics
- @NCICancerBio
- @NCItreatment
- @NCIprevention
- @NCICancerCtrl
- @NCIadvocacy
- @NCI_CSSI
- @NCIsbir